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WILD LIFE

DECEMBER

"THE
DEATH
LOCK"



STANFORD UNIVERSITY
WITHDRAWN

OFFICIAL PUBLICATION
MONTANA STATE FISH AND GAME DEPARTMENT

What of the Future?

By E. H. Pugh

I OFTEN sit and wonder, what the future holds in store;
And some questions keep returning to haunt me more and more.

*Will my grandson see the beauty of the rising of the sun
As he tramps through the woodland, with his bird dog and his gun?*

Will he know the birds that live there, the meadow-larks and wrens,

The mocking birds and whip-poor-wills, and think of them as friends;

*Will he float his decoys out there on the little bay
And the ducks come down to see them as they did for me today;*

Will he cast for fish in the little stream, where the waters leap and bound,

And will there be some big trout there like some that I have found?

Or will my grandson never have a bird dog for a friend;

Or hunt for ducks out on the lake, or feel a fish pole bend?

Or will the little stream be dry, the woods all cut away;

The partridges and grouse all gone, because they had no place?

For the game is getting less each year, the woods are getting thin

And sometimes I really wonder if there'll be anything left for him.



MONTANA WILD LIFE

The Official Publication of The State Fish and Game Commission

VOL. III.

HELENA, MONTANA, DECEMBER, 1930

NO. 7

State Fish and Game Department Achievements of 1929-1930

FIRST state game farm completed at Warm Springs with 392 pens covering six acres under wire, providing a capacity of 8,000 pheasants for release in 1931. Total birds released in 55 counties in 1930 reached 6,146.

Dams completed at Red Rock Lake and Fox Lake to retain water for nesting grounds and sanctuaries for migratory waterfowl.

Lake Francis hatchery and spawning station completed near Valier. This is regarded as the most modern rainbow trout spawn station in the nation.

Completed the largest warm water fish cultural pond station in the nation at Fort Keogh for the propagation of pike, bass, perch, catfish and sunfish for eastern Montana streams.

Scientific survey of the waters of Flathead Lake completed with reference to game fish in cooperation with the University of Montana, this being a pioneer effort in such research work in America.

Sincere efforts have been made to enforce the game laws in the state with an area of more than 90,000,000 acres with a staff of 24 deputy game wardens.

Fourteen fish hatcheries operated, maintained and enlarged, including the internationally famous spawn-taking station at the mouth of Flint Creek on Georgetown Lake.

Total of 38,321,884 game fish fingerlings reared in hatcheries and distributed in Montana streams and lakes in 1929 with approximately 40,000,000 in 1930 to keep pace with constantly increasing inroads.

Established and marked game preserves and sanctuaries for antelope, deer, elk, upland birds and other game.

Conducted a scientific survey and study of Montana elk herds and grazing problems in cooperation with federal departments.

Contributed 25 cents out of \$3,388 resident licenses issued in 1929 and a similar amount from licenses issued in 1930 to the biological fund maintained for paying bounties and waging war on predatory birds and animals.

Rearing ponds completed in all parts of the state in cooperation with organizations of sportsmen.

Completed the planting of duck food in pot holes, lakes and streams throughout the state, resulting in the increasing of the migratory waterfowl population.

Published and distributed MONTANA WILD LIFE, official monthly publication for the dissemination of accurate information to sportsmen regarding activities of the department.

Conducted hearings throughout the state and meetings with sportsmen when matters in controversy regarding game preserves or other matters have arisen.

Conducted thorough investigations by deputy wardens of agricultural areas damaged and flooded by beaver, issued 582 trapping permits in 1929 and tagged 8,153 beaver hides.

Provided hunting and fishing for thousands of tourists and investors from eastern states who expend millions in Montana annually as their summer playground.

Largest trout rearing ponds in the United States completed on the Big Hole River at Maiden Rock, in cooperation with Butte Anglers' Club.

Purchased the Anderson rearing ponds at Emigrant and reconstructed the hatchery.

Issued rigid instructions and permits to 1,777 Montana trappers in 1929 with the 1930 list still being issued.

Inspected the grounds and waters and issued licenses to 223 fur farms which constitute one of Montana's growing industries.



Can This Work Continue on the Basis of a \$2.00 License?

?

Thirty States Beat \$2 License Fee

DESPITE the fact that thousands of sportsmen of the nation annually turn the noses of their cars to Montana as the outstanding land of fish and game in the United States; despite the fact that more than 80,000 Montana resident licenses were purchased in 1929, and despite the rapidly increasing inroads made on forest, field and stream, 30 states in the Union have a higher hunting and fishing license fee than the \$2 fixed for Montana residents.

These 30 states, largely in the densely populated areas, where little game abounds and where stream pollution problems prevail, where the natural heritage of wild life has long since been exterminated and where artificial planting systems have become mandatory, have found it necessary to charge license fees greater than \$2 to keep pace with demands.

With the State Fish and Game fund at the lowest point in years, with a program of conservation and propagation of magnitude in hand and with the demands increasing to an alarming stage for more fish and birds, the department is in need of additional revenue. In full realization of the facts, the adjusted license fee has been unanimously indorsed by the Montana Sportsmen's Association, the Butte Anglers' Club, Flathead Game Protective Association, and by scores of other organizations of sportsmen of the state.

Thirty states which have a higher resident license fee than the \$2 now charged in Montana, follow:

Alabama—\$3 state; \$1 county.
 Arizona—\$2.50 fish and game; \$1.25 fishing.
 Arkansas—\$1.10 game; \$1.10 fishing; \$1.50 hunting dog.
 California—\$2 fishing; \$2 game.
 Colorado—\$5 big game; \$2 small game and fish.
 Connecticut—\$3.35 game; \$5.35 fish and game; \$3.35 fishing.
 Florida—\$8 game; \$3.25 county; \$3.25 fishing.
 Georgia—\$3 state; \$1 county.
 Hawaii—\$5 game; \$2.50 fishing.
 Maryland—\$5.25 state; \$1.25 county; \$1.25 fishing.
 Massachusetts — \$2.75 fishing and hunting.
 Michigan—\$2.50 deer and bear; \$1.25 small game; \$1 fishing.
 Minnesota—\$2.25 big game; \$1.25 small game; \$1 fishing.
 Mississippi—\$3 state; \$1 to \$3 county.
 Missouri—\$2.50 state; \$1 county.
 Nevada—\$2.50 game; \$1.50 fishing.
 New Mexico—\$5 game, birds and fish; \$4.50 game and birds; \$4.50 birds and fish.
 North Carolina—\$3.25 game; \$1.50 game and fish; \$5.25 game and fur.

This Month's Cover

MONTANA sportsmen are provided with one of the most unusual pictures yet provided by MONTANA WILD LIFE in the photograph of "The Death Lock" on the cover of this edition. The two buck deer, fighting for supremacy, staged their death battle near the Walker Ranch between Half Moon and Whitefish, Montana. The picture was taken by Jacob Neitzling of Columbia Falls, Montana. The bucks with horns interlocked were found by Mr. Walker about 100 yards from his barn. One of the deer was still alive and the other had been dead for some time. Coyotes had fed upon the dead deer as shown in the picture. It was necessary to kill the buck that was still alive because he also had been attacked by coyotes and it was impossible to liberate him from his dead enemy. The picture is copyrighted and the rights are owned by Charles Watts and Loy J. Molumby of Great Falls. MONTANA WILD LIFE wishes to thank the copyright owners for permission to publish this unusual picture.

Oregon—\$5.00 fish and game; \$3 game; \$3 fish.

Pennsylvania—\$2 game; \$1.50 fish.

Rhode Island—\$2.25 game; \$1.25 fish.

South Carolina — \$3.10 state; \$1.10 county.

South Dakota—\$5 big game; \$1 small game and fish.

Texas—\$2 game; \$1.10 fish.

Utah—\$3 fish and game; \$2 game; \$2 fish.

Vermont—\$1.50 fish and game; \$1 game; \$1 fish.

Virginia—\$3 state; \$1 county.

Washington — \$7.50 state; \$5 fish; \$1.50 county.

West Virginia—\$5 big game; \$1.25 small game and fish.

Wyoming — \$5 fish and game; \$2 birds; \$1.50 fish. Special licenses required for deer, elk, bear, mountain sheep, use of camera and other diversions.

Hangin' On

When life is plumb impossible,
 And everything goes wrong,
 You're sick 'n' tired of struggling,
 Then just keep hangin' on.

When hopes are dashed to smithereens,
 And castles tumbled down—
 Friends are few and far between,
 Just keep a hangin' on.

You will win out eventually,
 At least, you'll have the fun
 Of showin' how much grit you've got
 By just a hangin' on.

Montana, with an area of more than 90,000,000 acres in which several eastern states might be transplanted and lost, has attained a position of enviable esteem among sportsmen of the nation because of hunting and fishing advantages offered resident and visitor alike. The Treasure State, advertised throughout the United States as a vacation paradise, annually extends its hospitable arms to thousands of motor tourists seeking surcease from the influence of congested areas of the east, and in 1929 a total of 4,793 non-resident fishing licenses was purchased by visitors.

According to tabulations from federal statistics compiled for MONTANA WILD LIFE, 30 states in the Union have a higher resident hunting and fishing license fee than the \$2 charged in Montana and at the same time have little to offer in fish and game when compared with Montana's attractions; while 19 states have established a higher fee for non-resident fishing than the \$3.50 which prevails in Montana.

In 1920 Montana had but two fish hatcheries. During the span of the last 10 years, with the amazing growth of the demand for game fish, the State Fish and Game Commission has completed and equipped a battery of a total of 14 hatcheries in addition to spawning stations and rearing ponds, to keep pace with inroads being made on streams. These hatcheries must be maintained, enlarged and extended if Montana is to continue to retain its position in the esteem of residents and visitors.

To continue these operations additional revenue is required, and, with the Fish and Game fund at its lowest point in years, sportsmen generally have indorsed the adjustment of the \$2 license fee, and are appealing to members of the Montana legislature to enact a measure which will permit the program of conservation and propagation to proceed unhampered.

The 19 states which charge the visitor a higher non-resident fishing fee than Montana follow:

Alabama—\$5.
 Arizona—\$10.
 Alaska—\$10.
 Arkansas—\$5.
 Connecticut—\$5.35.
 Delaware—\$5.
 Florida—\$10.50.
 Idaho—\$5.
 Louisiana—\$5.
 Maine—\$5.15.
 Maryland—\$5.50.
 Michigan—\$5.
 New Jersey—\$5.50.
 New York—\$5.50.
 Oklahoma—\$5.
 South Carolina—\$10.25.
 Washington—\$5 state; \$2.50 county.
 West Virginia—\$5.
 Wyoming—\$4.

Game Farm Capacity Is Enlarged

COMPLETION of 112 additional wire pens for the propagation of Chinese pheasants and Hungarian partridges at the state game farm at Warm Springs, bringing the capacity from 5,000 to 8,000 birds annually, means that additional thousands of the multi-colored game birds will be released throughout the state in 1931 for the benefit of sportsmen. It likewise means that approximately 1,000 domestic biddies now clucking around Montana barnyards will be required at the state game farm to hatch out the pheasant eggs and mother the broods until the Orientals are husky enough to be released.

During 1930, when the Montana State Fish and Game Commission accomplished what is regarded by sportsmen as a modern miracle in game farming, 6,200 pheasants were released less than one year after the game farm was placed in operation. In this work the aid of 781 setting hens, now at the farm, was a dominant factor. This big flock of mamma biddies is being wintered to be ready for work in the spring.

Six acres are completely under wire at the state game farm. There are now 392 pens, each of which will accommodate 25 birds. After the birds are liberated the pens are used again each season to care for another brood.

According to J. F. Hendricks, superintendent of the game farm, which is the first established by the State Commission as a nucleus for others proposed, the breeding birds retained during the winter number 110 Chinese pheasant hens, 20 roosters, 250 Mongolian hens, 50 Mongolian roosters and 26 Hungarian partridges. Among other fancy game birds at the farm are a pair of golden pheasants and 12 youngsters, a trio of Lady Amherst pheasants and three young ones, a trio of Reeves pheasants, trio of silver pheasants, a trio of Melanistic Mutants, four blue grouse and 10 California valley quail. Tests are being made with these birds. Meanwhile they are being utilized for display purposes. Incidentally, more than 2,000 Montana residents keenly interested in progress being made at the game farm visited the scenic spot during the summer season.

according to estimates of the superintendent. On one Sunday last June 75 cars were counted at the farm.

According to a report from Superintendent Hendricks, Montana's climatic conditions are ideal for rearing game birds artificially in captivity, not a pheasant having been lost because of climatic conditions. He maintains that the best time for liberating the birds is when they are between seven and eight weeks old during the summer and early fall to give them time to get acquainted with their new surroundings. The best spots for releasing the birds, according to Mr. Hendricks, are in communities where there is plenty of vegetation, wheat fields where there are always a variety of weeds for seed, irrigated land where weeds, brush and sweet clover grow along the ditches.

With additional revenue provided through the proposed increase in the resident hunting and fishing license fee which will be acted upon by the coming legislature, it is hoped that funds will be made available to establish other game farms in Montana.

Split License Gains In Favor

SPORTSMEN of Montana who have made even a cursory study of wild life conditions and achievements of the State Fish and Game Commission toward sane conservation, are insistent in their demands that additional funds be provided the department in order that the restocking work shall continue unhampered," said George W. McCartney, manager of the Montana Club of Helena and one of the state's best known sportsmen. Before coming to Montana Mr. McCartney was for years a dominant factor in wild life propagation in Iowa and other middle western states.

"An adjustment of the resident fishing and hunting license fee is the solution of the problem," continued Mr. McCartney. "While 30 states in the Union, in many of which civilization and failure to restock forests and streams have wiped out fish and game, have a greater resident hunting and fishing fee than the \$2 charged in Montana, we have struggled along for ten years with this low fee and permitted the State Fish and Game Department to utilize its surplus to keep up its vast program of restocking. The time has come when the demands are so great that the fund will soon be wiped out, unless additional revenues are provided. If Montana is to retain her position of prominence in the nation as a summer playground and if fishing and hunting are to be maintained for this and future generations, more money must be made available.

"More fish and game necessarily means the expenditure of more money. Nature can not keep pace with inroads. It is a physical impossibility for fish, birds and big game to make a natural growth and reproduction with modern instruments of destruction at work. Motor cars, high powered rifles, motor boats, modern fishing lures, airplanes, forest fires, irrigation ditches and countless other agencies are at work and if the wild life heritage is to remain an attraction, the sportsmen of Montana who have given no thought to the situation must wake up.

"In my opinion the split license system with the adoption of the deer and elk tagging plan is most desirable. Men with whom I have discussed the matter favor a \$2 fishing license, \$2 bird license and \$2 big game license with a general state license covering all three for \$5. Coupons should be attached to each license ready to be detached and hitched to the carcass of each elk and deer killed. Law enforcement is made easier and the department is given a count of the number killed at the close of the season.

"Achievements of the Commission despite the handicap of lack of adequate funds have amazed sportsmen of the state. They appreciate the fact that Montana has been elevated to a position where other states are demanding Montana information, hence, they approve the plan for increasing the license fee. It means better hunting and fishing for them as well as for their sons and grandsons."

Invisible Highway

There is a road invisible

Across the darkened sky,
Adown that highway, wonderful,
By night the swift birds fly.

No sign is there to mark the course,
No light upon the way,
Yet the birds know where to find it,
And start on the hour and the day.

From the far land of Labrador,
Down the Atlantic Coast,
With never a pause for rest or song,
Sweeps by a mighty host.

All through the quiet, balmy night,
Flying on joyous wings,
Against the full moon may be seen,
The lovely, happy things.

Seeking the fair Enchanted Isles,
On wings that never tire,
For well can the birds remember
The land of the Heart's Desire.

The land of eternal sunshine
With fruit on every tree;
Where the palms are waving their banners green
To the ships on the purple sea.

Spreading their wings for a thousand miles,
Knowing they cannot fall,
For they have heard the Master's command,
And rejoice to obey His call.

Cascade Sportsmen Back License Plan

ENTHUSIASTIC sportsmen of Cascade and adjoining counties along the high line are overwhelmingly in favor of increasing the resident hunting and fishing license fee in order that the State Fish and Game Department may be provided with adequate funds with which to continue its remarkable campaign of conscientious conservation," said S. C. Rumford, president of the Rocky Mountain Chapter of the Izaak Walton League of Great Falls. Other officers of the chapter, who have taken a stand similar to that expressed by President Rumford, are the Rev. W. B. Nelson, vice-president; Grover Stephenson of the Sunburst Oil and Refining Company, vice-president, and George M. Bates, secretary-treasurer.

"Montana residents who will take the trouble to look around them in forest, field and stream and visualize achievements of the state department while working under a financial handicap, can only be enthusiastic in their commendation. Achievements of the last biennium in particular have aroused a spirit of keen cooperation among anglers and hunters of the state in the work of the Commission. During the last summer and fall 55 counties have been supplied with Chinese pheasants from the state game farm at Warm Springs, less than a year after completion of the plant. In 1929 more than 38,000,000 game fish were planted in Montana streams and in 1930 the number will pass 40,000,000. Adequate funds must be raised to continue this great work and sportsmen generally realize that the unselfish endeavors of leaders who make up the state department are

Moose Increasing

DURING the last 15 years the moose in the West Fork country on Rock Creek have increased from two to about 200, according to Ranger Stanley Lukens, in charge of the district. All are believed the descendants of the single pair which sought refuge near an old mine in the region years ago. At the present time the moose on the West Fork range in three herds, which include approximately 150 head. The rest are scattered in small bands of three and four throughout the Rock Creek country. Poachers kill some. Some were shot during the last year and left untouched by the killers. Occasionally some hunter is unable to resist the lure of spreading antlers and moose meat and takes a shot at the large animals, always under protection of a closed season.

being put forth for their benefit as well as for the preservation of the heritage for future generations.

"Montana is preeminent in the nation in its supply of fish and game. This fact is recognized. Thousands of tourists are coming to this state as their summer playground. The increasing drain on the fish and game supply necessitates constant restocking. Any man with a mite of a brain realizes that nature can not keep pace with the constant whipping of brooks. Artificial means must be utilized and it requires money and constant cooperation to achieve these results.

"In addition to a substantial increase in the license fee, or the adoption of a system providing separate licenses for fish, birds and big game, Montana should adopt the deer tagging system and make some provision for securing revenue from elk and deer scalps made available for taxidermists and for sale as trophies to eastern tourists. Under the present law trophies may not be purchased and taken out of the state by tourists except by special permit.

"The deer tagging system not only minimizes law violations in checking the killing of more than one deer or elk but it provides the department with a check on the number of each game animal killed during the open season. Law enforcement is naturally made more efficient with this system in effect. A coupon should be attached to the license or the metal seal system, such as is in vogue in Minnesota and other states, should be adopted.

"In traveling through the territory tributary to Great Falls I have had occasion to discuss fish and game problems with leading sportsmen and I find them practically a unit in favor of the increased license. No man who shoots square believes it is fair to take half a dozen pheasants which cost an average of \$7 each to rear, on a \$2 license, then catch perhaps 100 fish in the season that average 50 cents each in cost to produce, as well as bagging a deer and elk on that same investment of \$2. His outfit alone has cost him several hundred dollars and he realizes that the \$2 is but a fractional cost. The fee must be raised."

Antelope, Protected In Montana, Provide Thrills on the Skyline



BUFFALO herds and the passenger pigeons have become matters of history, yet the State Fish and Game Department is striving diligently to protect what remain of the thousands of antelope that once roamed Montana's prairies and dells. This unusual picture was taken by Albert Schlectchen of Bozeman. The little animals are keenly alert. One of the greatest difficulties in protecting the antelope of Montana arises from the fact that they are being killed by Indians on reservations. The government wards hide behind the fact that as Indians they may hunt and kill at will on their own reservations without regard to state game laws. Appeals have been made to the federal government to correct the situation.

Sportsmen For Deer Tag System

MONTANA sportsmen who are taking a keen interest in aiding the program of conscientious conservation in which the State Fish and Game Department is engaged, are not only zealously working to provide additional revenue through proposed revision of the resident hunting and fishing license fee, but are offering constructive suggestions through which the state department may keep a close check on conditions as well as aiding in law enforcement.

For years the Fish and Game Commission has realized the necessity of a deer and elk tag provision in the law in addition to a measure making it imperative that every hunter report the number and sex of big game bagged. Bert McMillan of Creston, one of the best known sportsmen of that vast paradise—the South Fork region of the Flathead—is one of the leading exponents of the deer tagging system.

Mr. McMillan offers these suggestions:

"No state has ever attained perfection in protection of game birds, fish and big game, yet I believe a provision in the law in respect to big game would lessen unlawful killing to a marked extent. The provision I suggest should meet with the wholehearted approval of every sportsman in Montana. I do not refer to the coyote masking under a human hide, who sneaks out at all seasons bent on killing some creature just for the sake of killing.

"In South Dakota, where I resided for half a century, a large game special license costing \$5.00 is issued, and it is that provision in reference to the big game license that I would like to see in operation in Montana. The big game license should be returned to the State Fish and Game Commission as soon as possible after a deer has been killed, and a penalty provided for failure to do so. When the killing of does was permissible it was necessary to state on the license the sex of the animal, thereby giving the game commission a check on the number and sex of animals killed.

"Montana issues a hunting and fishing license combined, hence some form of license should be adopted with the coupon feature incorporated, this coupon to be returned to the State Game Commission giving the sex and approximate age of the game animal taken. As there are more species of large game in Montana, it would be necessary to have a coupon attached to the license covering elk, deer, moose, goats and mountain sheep.

"It works this way: Tom, Dick and Harry go in quest of elk, or deer. Tom kills an elk, Dick bags a deer, and Harry gets nothing. They come home from the hunt and report their success; Tom removes the elk coupon from his license, Dick removes the deer coupon from his license, and they are re-

turned to the Game Commission. Later on Tom takes a notion to go in quest of deer, but instead of finding deer, he runs into a bunch of elk. Then comes the pinch. Does Tom knock down another elk? Not on your life. He has sent in his elk coupon and would be up against a heavy fine or imprisonment.

"A case similar to the one just illustrated happened in this community within the last two weeks. Tom went elk hunting on the South Fork shortly after the opening of the season and bagged a calf elk. He got no deer on that trip, so he went in quest of deer some two weeks ago, and was successful. While on his way home two cow elk and a calf stepped out in front of him. Unfortunately for Tom he had but one shell left. He killed the calf elk. When asked about getting a calf elk on the South Fork, he, of course, said that Dick had killed that one.

"Supposing this instance had been reported to the Game Commission under the proposed law? He would go to Tom and make inquiry. He then would go to Dick and inquire who killed the calf elk on the South Fork, and Dick asserted Tom killed it. How under the sun is Tom going to convince a court that he isn't liable to a fine?

"Ideal days have prevailed for the big game hunter. An excellent tracking snow has fallen. I know that Tom has killed an elk and a deer, but why has he been in the woods for the past two days?

"How many Toms are in the woods today, playing human hog with our game? This is a mighty big country and one game warden can't be everywhere. A law patterned after the South Dakota law would make it much easier for the game protectors over the state."

SERVICE STATIONS

"Hunter service stations" for the convenience of pheasant hunters were established at strategic points in or near the counties open to hunting in Nebraska during the 1930 season, Secretary Frank O'Connell of the Nebraska State Game Commission has announced. Hunters are required to obtain tags for all pheasants that are to be transported into a county closed to shooting. Often they are forced to travel long distances to a town where the tags may be secured. Partly to eliminate this annoyance, the "service stations" will be set up on main highways leading out of the open counties.

Irrigating Ditches Destroy Fish Life



IT HAS been well said by Montana sportsmen that "irrigating ditches operated without fish wheels destroy more game fish in a year than it is possible to produce with a battery of hatcheries." The picture above is a striking demonstration of destruction going on in all parts of the state. The fish run up the ditches from creeks

and streams, become landlocked in extreme ends of ditches and die there to become fertilizer, rather than to thrill an enthusiastic angler. Experiments are constantly being carried on to perfect fish wheels with which to equip the openings of ditches. The United States Bureau of Fisheries has been struggling with the problem for years.

Montana Fish and



Game Commission

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JOS. L. KELLY, Anaconda..Commissioner

W. K. MOORE, Billings....Commissioner

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WHO PAYS THE BILLS?

SOME day the great mass of people who hunt and fish are going to wake up to the fact that they are not going to be able to have \$50 or more worth of fish and game for \$2.00, the present fee charged for a resident license in Montana. Every passing year sees a nearer approach to an artificial supply of fish and game, if the demands of a growing throng of sportsmen are to be anywhere near satisfied. This artificial supply costs money. The question is: Who pays the bills?

The natural answer to this question is: The class that derives the benefit. Sport today in almost any form is expensive. Hunting and fishing are by no means the least expensive as most people follow them. If an adult trout costs a half a dollar to raise and a man thinks he's entitled to 50 in the course of a season, just how does he expect to get them for a dollar or two? If it costs a state \$7.00 to raise and liberate a pheasant, just how can the sportsman expect to get six for \$2.00? If some day it dawns on the sportsman that it really can not be done, then the next thing he will do will be to ask who is going to pay the balance.

The restoration of fish and game in this country is going to be a costly undertaking. Money is coming from somewhere if the work is to be done. Some one will have to foot the bills either in cold cash or its equivalent, work. In the meantime those who realize that fish and game restoration is necessary and also that it costs money are casting about for means of raising the funds with which to work.

One of the first suggestions is adjusting the cost of hunting and fishing licenses. If hunting and fishing are wholesome, health-giving pastimes, then we will be a better nation of people in time to come if a quarter of our population follow these sports instead of one-tenth. Each day makes us more eager to see a movement take root that will look toward a national outdoor recreational policy on a scale large enough to eliminate the necessity of increased assessments.

There's no music like a little river's. It plays the same tune (and that's the favorite) over and over again, and yet does not weary of it like men fiddlers. It takes the mind out-of-doors; and though we should be grateful for good houses, there is, after all, no house like God's out-of-doors. And lastly, sir, it quiets a man down like saying his prayers.—Robert Louis Stevenson.

BUCK LAW IS SAVING HUMAN LIVES

THE buck law, effective in Montana and other progressive states, is saving the lives of human beings as well. Since the law against shooting of does and fawns was inaugurated in Itasca county, Minn., not a hunter has been shot for a deer. A similar effect of the law has been observed in New York, Connecticut, New Jersey, Michigan, Wisconsin, Washington, California and Texas, where the protection of does has also been adopted.

Formerly this mistake was a frequent occurrence in every hunting season. Annals of hunting abound in stories of men being mistaken for wild turkeys, partridges, ducks and nearly every other prize of sport except black bass and speckled trout—the latter exceptions perhaps explainable by the fact that a law has long existed against the shooting of fish.

Such mistakes are usually due to blind shots fired by excited hunters at any movement in the brush. We still hear stories of men being shot because they were good at imitating the call of a turkey or wore a cap of a certain color. The law which requires a hunter to hold his fire until he can distinguish positively whether a deer is a doe or a buck prevents him from shooting blindly at a man by mistake. In some states the shooting of young bucks is also forbidden, and there the hunter must first count the points on his quarry's antlers. In every section where does have been protected an increase in the herd has resulted. In Pennsylvania the increase was so enormous the ban has been lifted.

Doubt not, therefore, sir, but that angling is an art and an art worth your learning.—Izaak Walton.

OUTDOOR CHARACTER

SOME one said, "The character and quality of a people may be gauged perhaps as much by the character of their sports and pastimes as by the serious business of life." One thing is certain: the boy who is wholly content to wander afield with rod or gun will never go very far astray, writes Ray P. Holland in *Field and Stream*. Such a lad is not apt to bring disgrace down upon the heads of his parents. Crime and a life out of doors are things apart. Seldom do you hear of a man who loves to hunt and fish being convicted of a serious crime. The man whose sons choose the streams and game fields for their playgrounds can consider himself fortunate.

Up until the present time we have been a nation of outdoorsmen. It was necessary for our forefathers to pursue game and take their toll from the streams in order to exist. Their characters were molded by the out of doors. We have followed along in their footsteps. No longer is it necessary, however, for us to kill game and fish for food. Today we participate in these greatest of health-building recreations in the name of sport. Who can deny that our parents' parents did not thrill with the sport of hunting and fishing fully as much as we do today, although the object of the chase in pioneer days was to secure food?

Our nation will only survive just so long as her manhood is clean, healthy and virile. It behooves us to guard zealously this greatest of all national assets. As long as we have an army of red-blooded men going afield each year, we will be just as safe should troubled times come as we are in days of peace. Every state should plan to reserve in perpetuity areas where the man of ordinary means can hunt and fish. Public shooting and fishing grounds for the grown-ups are just as important as public playgrounds for the children.

SPORTSMEN PROTECT THE ELK

THE Montana Record-Herald of Helena says editorially: A couple of years ago the Polson Rod and Gun Club went to considerable expense to secure two truck loads of elk from the National Bison Range at Moiese which were liberated in the hills adjacent to the little Lake county town. Recently three of the animals were illegally slaughtered. Three or four of the animals have been ranging in a farming district and have been looked after and protected by the residents. They were tame and were daily seen in the pastures or along the roadside affording a novel sight to tourists and other visitors to the neighborhood.

The latest slaughter aroused the anger of the farmers as well as members of the Polson Rod and Gun Club and considerable sentiment was stirred up against two men who were arrested shortly after the killing occurred. These men were arraigned before Justice Lambeth in Polson and he administered a heavy jolt following the defendants' pleas of guilty. A six months' sentence in jail and a \$500 fine were the punishment decreed. A third man is being sought for an alleged share in the slaughter. In addition to the fine and sentence the car and guns used by the poachers were confiscated.

The men involved in the latest killing of elk are said to be half breeds and it has been the claim of some of the Indians that they have a right to kill game, but as the latest killings were made off tribal lands where the laws of the white man rule, their disputed claims do not hold.

As is usual with wanton poachers, one of the three animals slaughtered in the latest affair to come to public notice was left to rot in the hills.

Lovers of wild life will uphold the action of Justice Lambeth. He has the support of the Polson Rod and Gun Club, which is determined that all cases of the sort shall be run down and if offenders are caught they shall suffer for their misdeeds.

One of Montana's greatest assets is its wild life and one that is, or should be, appreciated by every citizen. It makes little difference whether one hunts game with a rifle or shotgun or merely enjoys the sight of animals along the highways, few will be found who will uphold the action of poachers such as described. The drastic action of Justice Lambeth should be applauded and scant sympathy will be wasted upon the defendants.

"Be strong!
It matters not how deep entrenched the wrong,
How hard the battle goes, the day how long;
Faint not—fight on! Tomorrow comes the song."

WILD LIFE MENACE FROM THE AIR

AIR TRANSPORT is a new and dangerous menace to game. While it is unlawful nearly everywhere to hunt from an airplane, transportation to and from hunting fields by air is coming more and more into favor with sportsmen. While air travel by sportsmen can not be criticized as unethical the fact remains that it increases the hazard to game, will increase the kill and is just one more obstacle to the maintenance of a supply of wild life.

Montana sportsmen were recently astounded by reports from Valier that airplanes were utilized to swoop down over Lake Francis, frighten resting ducks and geese and cause them to scatter over blinds where hunters were concealed. A movement is now on foot to make the lake and surrounding area a game sanctuary.

Air transport companies are advertising that the new mode of travel "saves time," "saves expense," "saves labor," and puts one quickly and easily into game haunts inaccessible to pack train or canoe.

While there are thrills to be experienced in soaring over forests and lakelands seeking virgin game lands, much of the romance and joy of the time-honored and more primitive methods of travel by pack train, on foot and by canoe are lost. Many a veteran sportsman and explorer will be reluctant to abandon the forest trail for the paths of the air. A great part of the satisfaction of a hunting trip comes from the experiences of camp and trail. Much of the benefit from hunting comes from physical exertion required. To the seasoned outdoor man a hunting trip made easy and luxurious loses its zest and degenerates into a mere meat-hunting expedition.

GAME ABUNDANCE REQUIRES MONEY

WE HAVE been going along in such a happy-go-lucky, free and easy way for so long in America in the management of our game resources that any suggestion for radical change gives us a shock. We are due for a rude awakening, though, if we don't heed the handwriting on the wall and employ business principles in dealing with this problem.

The first essential in establishing any big business as a going concern is to provide ample capital. Lack of capital has wrecked many an enterprise that started with the most glowing promise of success. Capital in large figures must be provided to insure an abundant supply of wild game so that shooting may be had by any considerable number of our citizens.

Ample funds may be provided for purchase of extensive refuges, for public shooting areas, for game propagating farms, for purchase of breeding stock, for keeping destructive species under control and for effective patrol and supervision of the game fields and law enforcement.

Montana funds now available for these purposes are pitifully small. They must be multiplied many fold to meet the requirements.

There is a pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society where none intrudes,
By the deep sea, and music in its roar.
I love not man the less, but Nature more.
From these our interviews, in which I steal
From all I may be, or have been before,
To mingle with the universe, and feel
What I can ne'er express, yet can not all conceal.
—Byron.

TAKE THE BOY INTO THE WOODS

THE true angler is not of selfish cast, though at times his desire for solitude may bear semblance to selfishness. In grateful appreciation of his own good fortune, he takes youth with him for initiation into the fraternity of good sportsmanship. . . . Lacking sons of his own, he takes his neighbor's boy; the neighbor whose pursuit of sordid wealth leaves no time for play, or the neighbor who must, through circumstances beyond his own control, forswear his rightful inclination, and, in the stress of the business of life, forego that for which he so strongly yearns. . . . There is no cost to such a deed—in repayment the clear eyes and unsullied mind of youth recall those nearly forgotten mysteries of life which in years gone by also intrigued his thoughts and led him along the tranquil paths to nature's shrines.

One has to live a long time before one discovers that it doesn't matter much if one doesn't talk.

CASH NOTES IN SONG BIRD TUNES

THAT man's town noted for its tall buildings and blase citizens recently sat up and took astonished notice of a mere lot-selling scheme, than which there is nothing the average metropolitan apartment-dweller is quicker to question. A New York realtor lapsed into cogitation and landed on the unique plan of making song birds not only the salesmen of his new subdivision in exclusive Westchester, but legal shareholders for all time. As a result he broke into many news columns, the cash notes in the chirped tunes notwithstanding.

By legal contract every purchaser in the wooded precincts of Greenvale will be required to bestow a perpetual share of ownership upon the birds. He must recognize the subdivision as a bird sanctuary and promise to protect the songsters, bar all stray cats and keep his own tabbies indoors.

Colvin Farley, the realtor, told a New York newspaper that his experience had long since taught him the appeal in bird life to prospective city buyers, but that he had never before been able to assure the protection of birds from cats.

"I found," he is reported as saying, "that one resident's cat, innocently put out at night, could destroy or frighten away most of the birds in a few months. Even a well-fed cat turns killer after dark by instinct and accounts for several birds for the sport of it."

This is one of the first instances of a business man placing a huge cash value on wild birds. Farley has already built many homes on the subdivision, but they are bird homes—giving the feathered commuters priority.

Foxtail Grass Is Killing Elk

By WILLIAM M. RUSH, in Charge of Montana Elk Study



W. M. Rush

FOXTAIL grass, also called squirrel-tail grass because of its soft, brushlike spikes, is the primary cause of many of the losses of elk, deer and antelope in Montana and should be eradicated as completely as possible on the winter range. All the cultivated lands on this range should be seeded to pasture grasses. If cultivated land is allowed to lie idle for several years, fanweed and foxtail will crowd out timothy and other tame grasses. "Hordeum jubatum L., called squirrel-tail grass because of its soft, brushlike spikes, is common in the western states, where it is not infrequently a

seeds are borne in a dense seed head breaking up into awnbearing spikelets, the awns being barbed their entire length. These extremely sharp barbs all point to the tip, so that when once the awn starts to work in, the barbs prevent it from coming out until the action of the blood or juices of the



Tongue, upper and lower jaws of elk. Note the foxtail barbs in the lower jaw at right, the missing teeth and the two bunches of foxtail in the tongue at left.

sions) start is at the gum line and as they develop the teeth are loosened in their sockets to such an extent that oftentimes they drop out.

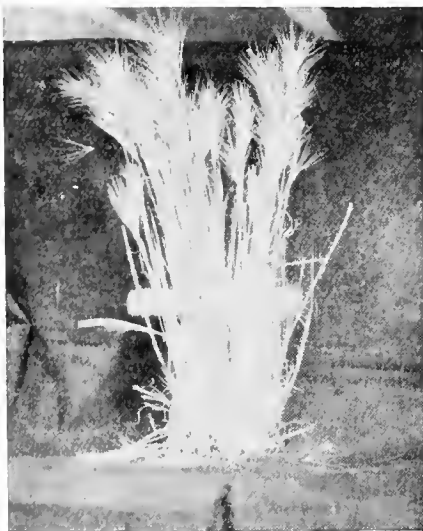
If these lesions (or any other) become infected with the *Bacillus necrophorus*, calf diphtheria (necrotic stomatitis) results. Or if certain fungi from forage plants enter the lesions, mycotic stomatitis may result.

The following are typical cases which have been observed the past year in Yellowstone Park and vicinity:

ELK NO. 5—Old cow elk, died on Game Preservation ranch April 25, 1929. Characteristic necrotic stomatitis lesions in mouth; number of teeth missing; socket of second pre-molar jammed with foxtail grass. Through necrosis the bony walls of the tooth socket had broken down allowing the sinus above to become filled with necrotic material. Barbs of foxtail were found in this material. Photograph of this skull attached.



Note the missing teeth and diseased condition of the jaws of this elk. This animal's death was no doubt caused by necrotic stomatitis.



Foxtail grass, also known as squirrel-tail grass, tickle grass, and barley grass, is shown above. It bears the scientific name: *Hordeum jubatum*. A six-inch rule is shown in the center of the bunch.

body sufficiently dissolve the awn to separate the barb from it. (Photo of awn shown.) A University of Nevada Bulletin states that a single bunch of foxtail of about 4 inches in diameter will produce 2000 seeds or 14,000 awns per plant.

If the plant ripens standing on the range, from 25 to 75 per cent of the awns drop off, depending to a large extent on wind and snow; however, if cut when green and put up in hay, practically all of the awns remain attached to the seed head.

For the purpose of this memorandum only the area used by the northern Yellowstone elk herd is considered.

Along the roads and in moist sites, foxtail grows inside the park to an elevation of about 6,500 feet. None has been found on the Slough Creek hay ranches or the Buffalo ranch. The cultivated ranches outside the park are most heavily infested areas, the Game Preservation ranch being among the worst. The immediate vicinity of Mammoth is quite heavily infested.

The U. S. Forest Service gives this grass a palatability of 40 for cattle and 10 for sheep on the Madison Forest, and 30 for cattle and 0 for sheep on the Helena Forest. For elk, antelope, and deer on the winter range where forage is scarce the palatability of foxtail is about 70. Where put up as hay, this is increased to about 85.

When foxtail is eaten by elk, deer or antelope, the awns stick to the fleshy part of the jaws and work into the flesh, thus causing sore mouths. The usual place that these sores (le-

troublesome weed in alfalfa fields. This species is called foxtail in Wyoming, barley grass in Utah, and tickle grass in Nevada." (From Genera of Grasses of the United States, B. P. I. Bulletin No. 772.)

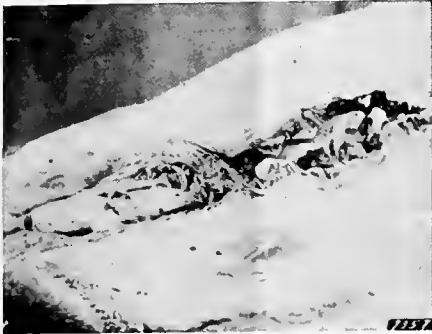
This grass grows from 12 to 24 inches in height in the locality of Yellowstone Park, in compact bunches from a strong mass of roots, the bunches becoming larger each year as the plant grows older. It is a coarse grass with numerous flat leaves. The

ELK NO. 8—Very old cow, killed with club at Home Preservation ranch January 31, 1930. Was so feeble it could not stand. Gum line on both sides heavily infested with foxtail awns. Mouth and tongue contained numerous lesions. Cysts were found on arteries and veins near the heart. Heart muscle flabby.

ELK NO. 10—Four (or five) year old cow, died on Game Preservation ranch February 15, 1930. Mouth showed characteristic necrotic stomatitis lesions. Foxtail awns sticking in jaw. The Bu-

reau of Animal Industry's experiment station at Miles City, Montana, reported that "small vegetable barbs (evidently from foxtail) were found in the abscesses in mouth."

ANTELOPE NO. 1—Mouth showed lesions similar to necrotic stomatitis. Decayed teeth.



Side view of skull of elk showing diseased condition of teeth and gums with foxtail grass barbs working into the flesh of both jaws.

ANTELOPE NO. 4—Mouth lesions characteristic of necrotic stomatitis. Food particles from lesion in jaw included barbed awns and barbs separated from awns. Decayed teeth.

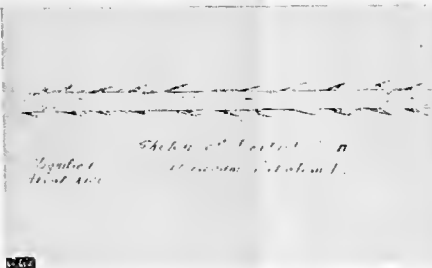
ANTELOPE NO. 9—Exoatosis in lower maxilla.

DEER NO. 4—Mouth in extremely bad shape. Sores contained foxtail barbs.

DEER NO. 5—Lesions in mouth, stomach and pelvic cavity. The B. A. I. reports on this specimen: "rumen punctured, diffused peritonitis extending to abomasium. Pericarditis result of puncture in rumen. No foreign body found in rumen that had punctured it."

It is reasonable to assume that the puncture was caused by foxtail grass working through walls of the rumen.

DEER NO. 6—Foxtail awns with barbs attached found in rumen. Awns without barbs and detached barbs found in reticulum. Partly dissolved



Sketch of foxtail grass awn magnified about 100 times. Note the reinforced base of each barb.

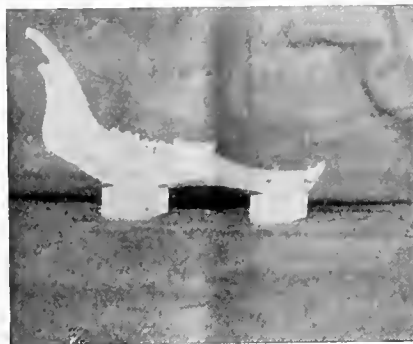
barbs found in abomasium. Abnormal spleen, flabby heart muscle and enlarged mesenteric glands.

Wild animals on their natural range, when about to die from disease or

natural causes, are adept in finding secluded places. Except in large herds similar to those in Yellowstone Park, it is seldom that one finds a dead animal. I have talked with old hunters who have never found a wild animal dead from natural causes such as old age or disease. Coyotes and other carrion eaters devour a carcass in a remarkably short time.

I can cite a concrete case to illustrate this point: In 1925 the Sun River herd of mountain sheep were infected with pneumonia and were dying at a fast rate. Previous counts had shown 269 sheep in this herd; after the epidemic had passed not more than 66 remained, yet only 24 dead ones were found in several days of search. This was in a comparatively rough country in which were many excellent places for concealment.

Except when game animals are congested, as on feeding grounds, it is not possible to find more than a small percentage of the animals that die as a result of disease, especially in the short lapse of time between death and the beginning of putrefaction which renders an animal unfit for examination.



Lower jaw of an antelope showing exostosis under the premolars. The molars are loose in their sockets, caused by foxtail grass barbs.

Mr. O. J. Murie diagnosed necrotic stomatitis in 70 out of 193 post mortems last winter in the Jackson Hole elk country and ascribed to foxtail grass the mechanical injury which allowed the disease to start.

Foxtail is the primary cause of many of the losses in elk, deer and antelope and should be eradicated as completely as possible on the winter range. No hay should be fed to game animals that contains foxtail.

All of the cultivated lands acquired in the elk range should be immediately seeded to pasture grasses such as the various browns, red top, blue grass, etc. If cultivated land is allowed to lie for two or three years, fanweed and foxtail will crowd out the timothy or other tame hay grasses.

Mrs. Henpeck (sarcastically): "I suppose you've been to see a sick friend—holding his hand all evening!"

Mr. Henpeck (sadly): "If I'd been holding his hands I'd have made some money."

Den of Rattlers Near Miles City

ONE hundred and sixteen rattlesnakes were killed in one day by Fred Quinell, civil engineer working with the new Miles City and Jordan highway. Several hundred more of the reptiles escaped down a hole while Quinell was emptying his shotgun into the rolling mass of snakes, on a mud butte near Cohagen north of Miles City, the civil engineer reports.

Among the snakes killed was one blue racer three and a half feet long. The rattlesnakes varied in size, some being three and four feet in length, the largest having 12 rattles.

Quinell and another man were delivering a truck load of drainage pipe to the Cohagen vicinity. In skirting the butte the men were attracted by a hissing and singing noise from down into the butte. There was a great ball of moving and twisting snakes and in every direction for 50 feet snakes were going to join the writhing mass, preparing to house up for the winter.

The civil engineer shot away a box of shells into the squirming ball which fell apart, scattering rattlesnakes. Numbers of the reptiles escaped down the hole. Having exhausted the shells the men picked up clubs and killed many of the rattlers attempting to get away. Quinell states they could hear the snakes underground and he judged there were several hundred within the butte as the snakes had evidently been assembling from the surrounding country to winter quarters. A large number of the rattles were taken to Miles City. Ed Russell, a construction contractor and pool room proprietor, says this is the largest den of rattlesnakes ever discovered in that part of the state. It has been suggested the den be dynamited in hope of destroying the many rattlers in the den. Russell says it is queer that one lone blue racer would be found in such dangerous company.

Man: "Say, conductor, can't you run any faster than this?"

Conductor: "Yes, I can, but I have to stay with the car."



Skull of an elk. Note the large opening in the upper jaw bone under the left eye and the missing molar cavity filled with foxtail grass. Exostosis of the lower maxilla is also shown.

More Money Means More Fish and Game

SPORTSMEN of Montana who give a thought to the future are heartily in favor of an adjusted hunting and fishing license fee which will provide the State Fish and Game Department with adequate funds with which to keep pace with constantly increasing demands being made on our forests, fields and streams," writes Roy F. Leighton, prominent Butte sportsman. Mr. Leighton has for years been prominently identified with the Butte Rifle Club, the Butte Gun Club, Butte Anglers' Club and other organizations of leaders interested in the out-of-doors. The adjusted license fee has been endorsed by the Montana Sportsmen's Association, the Flathead Game Protective Association, the Butte Anglers' Club, the largest organization of its kind in Montana, and by other leading clubs of sportsmen throughout the state.

"Montana has more to offer the sportsman in hunting and fishing than any other state in the Union," continued Mr. Leighton. "The only way in which we may retain this heritage is through continued stocking, enforcement of the fish and game laws, and warfare to keep predatory birds and animals reduced to the minimum. Now that we have the Chinese pheasant and the Hungarian partridge, through activities of the Fish and Game Commission, this work is especially important. If predatory animals are properly controlled it will be but a few years until the coverts of this state will be a sportsmen's paradise.

"Greater revenue must be provided the state department if we are to have more fish. At no time in their history have Montana streams been given such a thorough cleaning as during the last year. Because of the unemployment situation prevailing in Butte and other cities, streams within a radius of 200 miles of Butte have been fished to the limit. Even the Big Hole River is not the fishing stream it was two years ago when the anglers regularly landed trout weighing three and four pounds. Half a mile of creek or river formerly yielded the limit. Despite heavy stocking of trout, the streams are depleted. It takes money to rear fingerling trout and these streams must be restocked if our fishing attractions are to prevail. Anglers must now fish all day to land 15 or 20 small trout. More money is required for more fish.

"Another plan favored by ardent sportsmen who look to the future is the shortening of the fishing season. Washington's season is over May, June and July and each county in that state requires payment of \$3.50 for a non-resident fishing license. The state license fee is \$7.50 for a resident as against \$2 in Montana. Arizona has set aside two months for trout fishing with the license fee \$3.50. Idaho's license fee is \$3. An increased license fee and a shorter trout season with rigid enforcement of the fish and game laws is mandatory if Montana expects to continue to have hunting and fishing worthy of the name."

Lassoed Wolf Is Memory Reviver

WILD life days in Montana when cowboys in search of recreation turned to roping wolves, have been brought back to memory at Miles City, once famed cow town of the west, where a huge gray wolf captured in 1895 and mounted is a reminder to pioneers of the early cattle days when stockmen made Miles City headquarters and when cowboys came in from the range for a night's celebration.

The wolf, a little the worse for wear for so many years, is on display during the holidays. The wolf was captured by Jim McManny, who was employed by the N-Bar-N Cattle Company. McManny for several years lived in Billings and died there a few years ago.

Police Officer Jim Frazier of Miles City recalls the time McManny lassoed the wolf and brought it to town in 1895. With other cowboys of the N-Bar-N McManny was rounding up cattle one cold day in December. When giving chase to steers which had broken from the herd, McManny came upon a band of wolves skulking down a ravine. Wolves were thick on the range and the cowboys killed as many as they could when seeking cattle.

Sighting the wolves, McManny loosened his rope and riding around the wolves swept down upon them. The wolves scattered and McManny gave chase to one which made across the prairie. He kept close behind the fleeing wolf and when in leaping distance threw his rope. He missed and the wolf turned and started running in a zigzag direction toward some bluffs. Keeping his horse on the run, McManny soon came up with the wolf and again threw his lasso. The rope circled the wolf's neck. McManny's horse braced himself, pulling the rope tight. The wolf fought in madness and with the tightened rope choking it, the wolf made a leap toward McManny, who spurred his horse forward. The horse, snorting with fear, cut across the prairie, dragging the wolf. After running a mile or more McManny checked his pony and discovered the wolf was dead. The animal was one of the finest specimens taken on the north side. For several years it was an attraction in a saloon at Miles City. After prohibition came the wolf found a place in the old Arnold building, where on occasions it was a window display attraction.

The Judge: "Do I understand you to say that you once held public employment under the state as a geologist?"

Prisoner: "Yes, I made a study of rocks for 90 days."

The Call of the Open

SINCE the lure of the lonely places is spiritual and aesthetic, Nature sees to it that in the great tracts of earth where it is greatest, and gold or precious stones or timber wealth exists, sickness and death shall stand guard over both lure and loot; that only the strong shall survive to seize them. The weak and faint-hearted die or depart, afraid to look upon that naked face of Nature which illumines Destiny.

So on the tangled banks of the Amazon, on the primeval tracts of Central Africa, on the caribou haunted plains of the Arctic circle, on the bleak splendor of the Russian steppes, thousands look and long, and faint and shudder, and turn again to the safe cities. Only the few press forward to the voice of the lure, and enter into dominion.

To each comes sufficient to live, and to enjoy the living; and to a few, wealth. To some of these last, the lure has already transcended loot and luxury, and it is of such Robert Service sings when he says:

There's gold, and it's haunting and haunting—

It's luring me on as of old;
Yet it isn't the gold that I'm wanting,
So much as just finding the gold.

It's the great, big, broad land, 'way up yonder,

It's the forests where silence has lease,

It's the beauty that fills me with wonder,

It's the silence that fills me with peace.

Keep Wild Birds Separate

DO NOT feed game birds with domestic poultry, is a warning contained in a leaflet, "Winter Feeding of Birds," issued by the Michigan Conservation Commission. Game birds are most susceptible to poultry diseases, as has been proven by the grouse breeding experiments of Dr. Allen of Cornell University. They should be kept off ground contaminated by chickens.

The report reads: "Food should be placed in shellers regularly that the birds will make it a habit to frequent the feeding places. Quail feeding stations should be close together — one feeding station to each 40-acre tract.

"Prairie chickens range from one to five miles, and feeding stations should be provided in counties where this splendid game bird is found.

"Pheasants will leave a section where food is not plentiful, and will seek good feeding grounds elsewhere."

"Pop, can't we move soon?"

"Move? Why?"

"Well, I've licked all the kids in the neighborhood."

Sportsmen In Line In Sheridan County

SPORTSMEN of Sheridan county and the entire northeastern portion of the state are announcing themselves in no uncertain manner regarding the necessity for increasing the resident hunting and fishing license fee in order that adequate funds be provided the state department for continuing the campaign of constructive conservation of wild life in Montana. At a recent meeting of about 45 leading sportsmen of the county at the Rose Hill Farm, near Reserve, owned and operated by Senator Lars Angvick, the matter was thoroughly discussed and it was decided to recommend the adoption of a "split" license system. The suggestion is that a fee of \$2 be charged for fishing, \$2 for hunting birds and small game and \$2 for hunting big game or a combination state license for all three for \$5.

Senator Angvick, who served efficiently as a member of the house of representatives during the last session, was elected to the upper house in November. He has assured sportsmen of the district that he will follow their requests and stand for sustained co-operation with the Fish and Game Department in providing additional revenue to assure preservation of the state's heritage of denizens of forest, field and stream.

BIRDS STAY IN PARK

Permanent bird residents of Yellowstone National Park include the mallard, Barrow golden-eye, Canada goose, Wilson snipe, Richardson grouse, Franklin grouse, gray-ruffed grouse, golden eagle, kingfisher, magpie, blackheaded jay, Rocky Mountain jay, raven, crow, Clark nutcracker, ouzel, Rocky Mountain creeper, red-breasted nuthatch, chickadee and solitaire.

Wild Geese

How oft against the sunset sky or moon
I watched that moving zig-zag of
spreading wings
In forgotten autumns gone too soon,
In unforgotten springs!

Creatures of desolation far they fly
Above all lands bound by the curling
foam;
In misty fens, wild moors and trackless
sky
These wild things have their home.
They know the tundra of Siberian coasts
And tropic marshes by the Indian
seas;
They know the clouds and night and
starry hosts
From Crux to Pleiades.
Dark-flying rune against the western
glow—
It tells the sweep and loneliness of
things.
Symbol of autumns vanished long ago,
Symbol of coming springs.

Antelope Gain on Montana Ranch



many more years. Mr. Sullivan's fondness for antelope and his desire that they should not be exterminated resulted in the creation of a game preserve on his ranch. Prior to that time, although the law forbids the killing of antelope, the animals were being killed. The herd had decreased to only a few on hills and plains.

The preserve covers 12 sections of Mr. Sullivan's land. As the herd has increased the range requirements for the band have increased. Mr. Sullivan sees the time when, unless something is done, the antelope will need all the range he has and more.

Mr. Sullivan is as anxious as ever to have the antelope protected but believes the protection project has surpassed primary expectations. The animals, part of the survivors in Montana of millions that once roamed the hill and prairie country, are on their natural range on the Sullivan ranch. Mr. Sullivan suggests that the problem might be partially solved by taking some of these antelope and with them establish herds in other parts of the state.

Polly: "What makes you so hoarse, Buck?"

Buck: "I've been talking through a screen door and strained my voice."

Song of Winter

The Frost King sings, when he comes
to earth
A quieting melody,
Like a mother putting her babe to rest,
And he croons it tenderly.

Beguiling earth into dreams of spring.
Of youth that was ever so fair,
Till she decks herself in her gayest
gown,
With scarlet leaves in her hair.

And the Frost King smiles; it will not
be long—
She will lay all these aside—
He will shower on her the fairest
gowns,
Dressing her as a bride.

Flathead Clubs For Increased Fee

FOLLOWING unanimous indorsement by the Montana Sportsmen's Association of the proposed adjusted resident hunting and fishing license fee, in order that the State Fish and Game Department be provided with additional revenue to continue the state campaign of conservation of wild life, organizations of sportsmen throughout the state have been taking similar action and the Flathead Game Protective Association and Whitefish Rod and Gun Club have joined forces to extend all possible aid.

At a meeting at Whitefish unqualified indorsement of the proposal was given. The recommendations of the clubs are that in addition to increasing the resident license fee, the age limit be reduced from 15 to 14 years, that the open season on deer be made November 1 to November 15, that the buck law be continued for two years and then an open season be declared on deer of both sexes and that a deer tagging system be adopted.

Sportsmen attending the meeting indorsed the plan for cancellation of the license of law violators and, following three convictions, favoring revocation of all hunting and fishing privileges of the habitual violator.

The matter of sheep grazing on game areas was discussed and President Keller was instructed to take up the matter with forestry officials. Members of the legislature have been invited to attend the next meeting at Kalispell.

Action of the clubs on the proposed license fee increase was communicated to clubs in Mineral, Madison, Gallatin, Glacier, Lake, Lincoln, Sanders and Ravalli counties with the request that similar action be taken for the guidance of their legislative representatives.

Keep On Keepin' On

If the day looks kinder gloomy,
And your chances kinder slim;
If the situation is puzzlin'
And the prospects awful grim;
And the perplexities keep pressin',
Till all hope is nearly gone,
Just bristle up and grit your teeth,
And keep on keepin' on.

Fuming never wins a fight,
And frettin' never pays;
There ain't no good in broodin' in
These pessimistic ways;
Smile just kinder cheerfully,
When hope is nearly gone,
And bristle up and grit your teeth,
And keep on keepin' on.

There ain't no use in growlin'
And grumbling all the time;
When music's ringing everywhere,
And everything's a rhyme,
Just keep on smilin' cheerfully,
If hope is nearly gone,
And bristle up and grit your teeth,
An' keep on keepin' on.

Increased Revenue Is Badly Needed



J. L. Boardman

MONTANA is the last of the pioneer states and can travel in one direction only and that is forward. The State Fish and Game Department realizes this fact fully and is doing remarkable work in preparation for the time soon to come when Montana will be fully appreciated by her citizens and known to millions of other Americans," writes John L. Boardman, one

of Butte's best known sportsmen, in discussing the proposed adjustment of the hunting and fishing license fee indorsed by the Montana Sportsmen's Association. Similar indorsement has been given by the Butte Anglers' Club, the largest organization of its kind in the state, and other leading clubs.

"The income of the State Fish and Game Department is small when we realize that it must cover the work of propagating and protecting game and fish over an area of 146,131 square miles," continues Mr. Boardman. "Over this vast area each year some progressive step, such as establishing a hatchery or a game farm, rearing pond or spawning station, must be done in order to keep the sportsmen satisfied, and when these much-needed forward steps have been taken, there must be additional men employed to care for them. Out of the small amounts received game wardens' salaries must be paid, the predatory animal control financed, financial assistance given local anglers' and gun clubs, and numerous other items of expense must be met.

"In consideration of all these facts any one can see that the income of the Montana Fish and Game Commission must be increased by raising the cost of license to sportsmen. Not only must we raise the license fee now, but we must look forward to another raise in a few years as the state and the work of this Commission grows and expands.

"There are two plans afoot. One of the suggestions made is to adopt the split license system, making fishing only license \$2, hunting only license

\$2, general hunting and fishing combination license \$5, and the other is to raise the general license to residents and non-residents alike.

"The split license plan would result in increasing the income of the Game and Fish Commission about \$30,000 or about 20 per cent above the present income. The flat raise of 50c each on resident and non-resident general hunting and fishing licenses would increase the income by about \$45,000 or approximately 30 per cent. The license sale, however, would of necessity be smaller.

"In view of the fact that a fishing and hunting license fee of \$2.50 is still much cheaper than the cost of similar licenses in surrounding states and in consideration of future requests for increased income, I believe it would be best this year to raise the price of general license to \$2.50, then a few years hence, after the demand for increased funds has again overtaken us, go into the split license fee plan on the \$2.50 basis."

Russians Request Wild Life Data

ACHIEVEMENTS of Montana's State Fish and Game Commission and methods through which wild life of the state is being conscientiously conserved, are attracting not only the attention of state departments and sportsmen of the nation, but have aroused calls from far away Russia. The land of the soviet, making such progress in industrial and agricultural lines as to stir American interest, is apparently giving attention to its fish and game. Some months ago the following communication was received by the State Fish and Game Department at Helena:

"Please don't refuse to be so kind as to send me copies of your 1925-1929 biennial reports and the complete file of your official publication, MONTANA

WILD LIFE for 1929 and to be regularly sent during 1930."

Yours very sincerely,

N. ZVERINSKY.

Post Office Box 23,
Zagersk (Sergieff) Moscow,
District U. S. S. R., Russia.

Comes now another communication addressed to the Commission and forwarded through F. B. Linfield, director of the agricultural extension service of the Greater University of Montana. Written in an open scrawl in such manner that the peculiar letters are hardly legible, the Moscow journalist appeals in this manner:

"I am a Moscow journalist and feel the vividest actual interest in the economic conditions, natural resources and industrial department of every state of the great and noble American Union. I have already established the most useful and friendly relations with the agricultural experiment stations, high schools, and state departments in the major part of states.

"I take, therefore, liberty in applying to you with my humblest begging to assist me in collecting desirable facts regarding your state as well as to send me the following: Copies of 1925-1929 reports of the State Fish and Game Commission and complete file for 1930 of MONTANA WILD LIFE, which is the official publication of the department. Thanking you in advance, I remain,

H. C. ZCEPUNCKSKY,
U. S. S. R. (Russia) Zcoropck,
Mockde Oxyprer."

The communications of these Russian students have been answered, yet sportsmen of Montana are still wondering how the gospel of Montana conservation has been spread to the Soviet nation.

MERE LOTUS EATER

"What do you do?"

"I keep house, scrub, scour, bake, wash dishes, cook, do the landdry, iron, sew."

And the census-taker listed her as: "Housewife—no occupation."

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Former Speaker For Increased License

ACHIEVEMENTS of Montana's State Fish and Game Department during the last several years in the face of an amazing increasing demand on limited funds at the disposal of the Commission, have stirred sportsmen of the state with realization of the necessity for providing additional revenue in order that the work of conservation shall not lag," according to Glenn T. Davis, former member of the house of representatives from Wibaux county and former speaker of the house. Mr. Davis is state manager for the Continental National Life Insurance Company with offices in the LaLonde building, Helena. He is likewise an ardent sportsman and while a member of Montana's legislature demonstrated a keen interest in fish and game measures.

"Montana has become known throughout the nation for her fish and game resources," continued Mr. Davis. "Had the work of restocking streams and fields been neglected, the tourist travel which means millions would be a negligible quantity now. With constantly increasing demands being made on the funds of the State Commission, this work has progressed under an administration of sound business acumen. If it is to continue to keep pace with the demands, sportsmen of the state must pay an increased hunting and fishing license fee. In all parts of the state where I have traveled the sentiment is overwhelmingly in favor of the adjustment. No thinking sportsman believes it is fair to invest \$2 in a license and then expect to take a bag of Chinese pheasants which cost approximately \$7 to rear, several hundred fish, a buck deer and an elk of goodly size. The meat in itself has a value several hundred times the price of the license. A sportsman invests several hundred dollars in his hunting and fishing equipment and rather than object to paying an increased fee for the privilege of enjoying the sport, he knows that his investment is aiding in maintaining this great heritage of wild life for future generations. The buffalo, antelope and passenger pigeon have taught us a lasting lesson.

"While additional funds are being made available for carrying on the work, provision should also be made

for the adoption of a deer and elk tagging system. Coupons should be attached to big game licenses, which are to be torn off and attached to the carcass of the deer or elk, or metal seals may be substituted, revealing at a glance at the license whether the holder has used the tag. The tagged carcass is likewise made legal and the department in addition is given an accurate check of the total number of deer and elk killed in each county at the close of the season.

"Montana sportsmen are not hesitant in commending the work of the State Fish and Game Commission. They realize that men who make up this board are giving freely of their time, experience and effort to maintain hunting and fishing conditions which will serve to continue to attract visitors and investors. An analysis of constructive achievements of the department reveals facts which merit the position of enviable esteem in which Montana's conservation methods are held throughout the nation. I am confident that members of the twenty-second legislative assembly will enact measures making possible the continuance of this work."

Clay Pigeon Leaders

E. W. "TED" RENFRO of Dell, with an official average of .9794 on 2,625 targets, appears certain to be the high average trapshooting titlist of Montana again this year. If Renfro isn't displaced as the leader it will mark the sixth time in the last ten years he has annexed the honors with a 97 per cent or better average. Renfro grabbed the all-around and high-over-all titles at the state meet. He is one of the country's topnotchers.

N. J. Birrer of Twin Bridges, V. W. Rothrock of Billings, L. J. Yealy of Shelby, and E. J. Boe of Great Falls are next in line in the order named. All have bettered their averages since 1929, and will be out there fighting it out for second, third and fourth place honors.

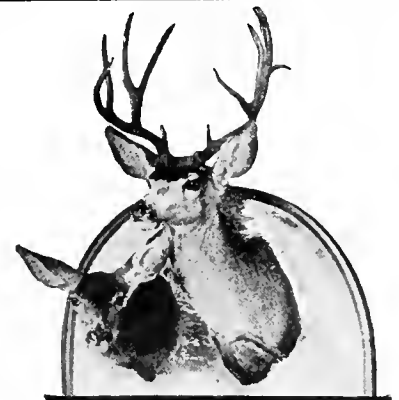
Guy F. Egbers of Livingston has been away off in shooting this year because of using a 20-gauge gun and as a result is far down on the list with a mark of .9276 on 1,050 targets. Last year he was a close second with .9696 on 2,500 targets.

Montana shooters with an average of 92 per cent or better, according to November figures compiled by the Amateur Trapshooting Association of America, follow:

	S. at	Brk.	Avg.
E. W. Renfro, Dell	2625	2571	.9794
N. J. Birrer, Twin Bridges	950	916	.9642
V. W. Rothrock, Billings	900	864	.9600
L. J. Yealy, Shelby	900	855	.9500
E. J. Boe, Great Falls	500	473	.9460
J. J. Robinson, Anaconda	600	567	.9450
C. E. Clark, Shelby	500	472	.9440
C. O. Campbell, Billings	500	472	.9440
W. R. Wilcoxson, Gt. Falls	925	870	.9405
Bill O'Malley, Butte	1250	1172	.9376
Robert H. Hill, Helena	600	562	.9366
F. E. Kessler, Helena	700	653	.9328
Charles F. Staples, Butte	900	837	.9300
Ed Walker, Helena	800	744	.9300
Walter S. Fultz, Billings	500	465	.9300
A. C. Ellinghouse, Sheridan	1275	1185	.9294
Fred F. Young, Butte	1675	1554	.9277
Guy F. Egbers, Livingston	1050	974	.9276
Henry Snyder, Sheridan	1200	1104	.9200
E. B. Stenmarck, Glendive	650	598	.9200

COURT LEFT HIM HIS PANTS

It would probably take more than the report from Florida that a stolen goat is of greater value in the eyes of the law than an illegally slain deer to change the views of a hunter concerning the high cost of partridges in Michigan. A hunter of Trimountain, with his gun, automobile and his liberty, started out after the protected bird. Haled into court, he was found to be using his gun, and that was confiscated. He was found to be hunting from his car, and the car was taken. Then he lost his liberty to the tune of 60 days in jail. And he got no partridges.



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Montana Sportsmen's Association

SPORTSMEN'S GROUP MEETS

DIRECTORS of the Montana Sportsmen's Association met at Billings on Wednesday, November 19th. Those present were Glen A. Smith, chairman; Fred Williams, A. H. Croonquist, and B. F. Gerry, secretary. After disposing of the regular business of the association the following tentative program was drawn up. This will be presented at the annual meeting of the association for adoption:

1. To cooperate in the work of the State Fish and Game Commission.
2. To cooperate with all agencies working for the betterment of state and national fish and game conditions.
3. To assist in forest protection and extension where it is deemed advisable.
4. To support more scientific research and management of state fish and game management.
5. To aid in the restoration of lakes.
6. To help bring about greater cooperation among those participating in wild life conservation.
7. To help create a better feeling between the farmers and sportsmen.
8. To urge the establishment of more refuges and sanctuaries.
9. To aid all affiliated clubs in any and all programs and problems.
10. To study present game refuges and to ascertain whether they are functioning as they are supposed to do, and if not to help determine what shall be done.
11. To further study game refuges and move to establish same where necessary.
12. To foster and encourage the restoration of lakes and establishment of needed water areas for the purpose of increasing migratory waterfowl within the state.
13. To foster and encourage more scientific research and fact-finding agencies for further guidance of fish and game management throughout the state.
14. To carry on an extensive educational campaign so that a better realization of the value of our wild life may be brought about.
15. To assist all legitimate agencies striving to increase the tourist trade in Montana.

MANY SEE PICTURES

DURING the past few weeks pictures of Montana wild life have been shown to several thousand people by B. F. Gerry, secretary of the state association. These pictures are being shown to the schools, Boy Scouts, women's clubs, service clubs and sportsmen's clubs throughout the entire state. They have been made possible by finances provided by the State Fish and Game Department. Several additional reels showing game animals will be completed in the near future by Paul Fair, who is now getting pictures of these animals on their winter feeding grounds. Mr. Fair is employed by the State Department.

Copenhaver Favors Adjusted License



Dr. W. M. Copenhaver

MEMBERS of the Montana Sportsmen's Association have unanimously indorsed the proposed revision of the resident hunting and fishing license fee in order that the State Fish and Game Department may be provided with additional revenue to continue the constructive campaign of conservation in which it is engaged without threatened handicaps. The state fund is now at the lowest point in years. Dr. W. M. Copenhaver of Helena, one of the foresighted sportsmen directly responsible for the formation of the state association and who is now a director, is one of the outstanding exponents of the plan to make possible the continuance of maintenance of stocks of fish and game. Dr. Copenhaver has for years taken a keen interest in affairs of the department and is a recognized leader in movements intended to make Montana a better state in which to live. The next annual meeting of the state association is tentatively scheduled at Helena January 9 and 10, during the coming legislative assembly.

ANNUAL ASSOCIATION MEETING

THE annual meeting of the Montana Sportsmen's Association will be held in Helena early in January, the 9th and 10th being named as tentative dates. Due to considerable interest in game conservation throughout the entire state, a record attendance is expected. A constructive program is being outlined for this meeting.

AN IDEAL CHRISTMAS GIFT

ASUBSCRIPTION to MONTANA WILD LIFE answers the question of a Christmas present in many instances. It will be enjoyed by every man, woman, girl and boy. It keeps the sportsman in touch with conservation activities. A subscription for a Boy Scout troop will be appreciated. They are interested in wild life and some of its truest friends. In a great many instances it will convert a poor sportsman into a good sportsman. It should be read by every citizen as it contains valuable information regarding one of our greatest natural resources.

MANY CLUBS FAVOR INCREASE

SPORTSMEN of Montana are coming to realize that the perpetuation of our wild life is dependent upon their support, according to B. F. Gerry, who has completed a four weeks' trip visiting sportsmen's clubs. "If the majority of sportsmen in Montana will but extend their support it will be possible to carry on a proper conservation program. If this is not done, it will be a matter of a very few years until our wild life is depleted in the same manner as has occurred in many other states. These states have spent huge sums in replacing wild life and in the meantime sportsmen have been deprived of fishing and hunting. It is up to the sportsmen of Montana to protect this great resource which has such a tremendous recreational and commercial value."

JOINT MEETING AT BILLINGS

THE Dude Ranchers' Association held the fifth annual convention at Billings November 17 to 19. The entire last day and evening was given to discussion of conservation of wild life. Sportsmen of Montana should be grateful to the association for the interest and support they are giving to this most important work. Many matters of vital interest to sportsmen of this district were gone over and the meeting was well attended. Members of the Wyoming Fish and Game Commission, Montana Fish and Game Commission and Montana Sportsmen's Association were present. Meetings of this nature have much to do with the perpetuation of our wild life. The Montana Sportsmen's Association extends thanks to the Dude Ranchers' Association for making this meeting possible and also for support they are giving in the matter of conservation.

ROASTED MUD HEN

THE U. S. Department of Agriculture has found time to say a good word for the mud hen, otherwise known as the hell diver or "coot." It seems that there is popular distrust of the feeding habits of the coot and for that reason hunters rarely seek it. But the department says the bird is a clean feeder, cleaner than many established game birds, and that hunters would be delighted with the taste of its roasted breast. And, since the coot damages rice crops, it would be good riddance, the department believes, if hunters would bag the limit of coots at each opportunity. Reports from state agencies to the department show that approximately 6,425,000 hunters and fishermen paid in \$9,392,000 for licenses during the 1928-29 season. California collected the largest sum, \$488,114.